

Subject:	INFORMATION: Compliance with the Requirements of § 25.811(c)	Date:	NOV 16, 1993
From:	Manager, Transport Airplane Directorate Aircraft Certification Service, ANM-100		
To:	SEE DISTRIBUTION LIST		

This memorandum is provided in response to a request for guidance relative to the subject requirement: "Means must be provided to assist occupants in locating the exits in conditions of dense smoke."

Notice of Proposed Rulemaking (NPRM) No. 66-26, dated July 26, 1966,, states that, "Means, such as distinctive material on seats adjacent to an exit, or a strobe light under seats at exits, would be required to assist occupants in locating exits in dense smoke." The preamble to the associated final rule, Amendment 25-15, effective October 24, 1968, notes in responding to a commenter, that strobes could be considered acceptable for complying with the requirement. Accordingly, the Transport Airplane Directorate interprets the original intent as clearly requiring additional hardware means (e.g. " seat material, strobes, etc.) to materially enhance occupants' ability to locate the exits.

Nevertheless, we are aware that past practice in response to this requirement has been to accept largely procedural abilities, such as groping along the ceiling for existing exit signs or lowered ceiling sections adjacent to certain exits. Tactile "buttons" on bagracks and stowbins have also been utilized (at Type III exits only) in response to this requirement. In retrospect, however, these approaches are considered undesirable, in that:

- a. the rule identifies a goal of assisting occupants. There is no indication that the accepted operational procedures, or the existence of tactile buttons, have ever been communicated to passengers;
- b. even with passenger awareness, locating exits by groping along the ceiling in conditions of dense smoke is ill-advised, due to the danger of smoke inhalation. And, in the case of wide-body aircraft or for smaller passengers on any aircraft, it is impossible.

For most airplanes, however, the issue is moot. For new type-design passenger airplanes, § 25.812, Amendment 25-58, effective November 26, 1984, mandated the installation of a floor proximity emergency escape path lighting system, and § 121.310, Amendment 121-183, mandated retrofitting this system by November 26, 1986. Airplanes operated under Part 135 were similarly affected.

The only airplanes in service that may be considered to be adversely affected by any inadequate compliance with the intent of § 25.811(c), are those without a floor proximity lighting system mandated by either type design or operational requirements. Over time, with attrition and modernizations, those airplanes may be expected to constitute an increasingly smaller percentage of the world fleet. The only two categories of airplanes believed to be affected are:

- a. freighters that also carry "supernumerary" crew occupants in addition to cargo, and;

b. pre-amendment 25-58 passenger airplanes operated by foreign carriers, and not required to be retrofitted in accordance with an equivalent to Amendment 121-183 by the cognizant authority.

To positively address the issue for any affected airplanes yet to enter the fleet, the following policy is considered appropriate:

a. Compliance with § 25.812, Amendment 25-58, shall also be considered compliance with § 25.811(c), and;

b. New models, derivatives, and customer configurations of airplanes that would otherwise not be delivered with a § 25.812, Amendment 25-58, floor proximity lighting system to comply with either type design or operational requirements, shall be required to include a means to substantively comply with the requirements of § 25.811(c). We anticipate that a reduced-scope form of floor proximity lighting system could be acceptable. Compliance of currently delivering "mid-block" "previously approved" configurations shall be encouraged and achieved to the extent that it can be negotiated.

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